

**WHAT IS CLAIMED IS:**

1           1.     A computer, comprising:  
2           a central processing unit;  
3           a main and/or auxiliary power supply for supplying main and/or auxiliary power of the  
4 computer;  
5           a boot image storing device for storing a boot image of the computer;  
6           a main memory for storing the boot image from the boot image storing device by receiving  
7 the auxiliary power when the main power is shut off; and  
8           a composition memory for setting an instruction pointer of the central processing unit to a  
9 specific region of the main memory storing the boot image, wherein the central processing unit loads  
10 the boot image from the specific region of the main memory in response to the instruction pointer,  
11 allowing an operating system program can perform control functions.

1           2.     The computer according to claim 1, wherein the auxiliary power supply is composed  
2 of alternative one of a battery and a suspend voltage supplying unit of the main power supply.

1           3.     The computer according to claim 1, wherein the boot image storing device is a hard  
2 disk drive.

1           4.     The computer according to claim 1, wherein the boot image storing device is a non-

2 volatile memory device.

1 5. The computer according to claim 1, wherein the boot image storing device is a  
2 compact disk drive.

1 6. The computer of claim 1, wherein said composition memory is a BIOS ROM (Basic  
2 Input Output System Read Only Memory).

1 7. A method for powering down a computer receiving main and auxiliary power, the  
2 method comprising the steps of:

3 providing a central processing unit, a main memory, a basic input/output system memory and  
4 a boot image storing device;

5 determining whether the computer is powered down;

6 reading out a boot image from the boot image storing device;

7 storing the read boot image to the main memory;

8 supplying the auxiliary power to the main memory; and

9 shutting off the main power.

1 8. The method of claim 7, wherein said step of reading out a boot image from the boot image  
2 storing device is accomplished according to an initial state of the main memory.

1           9. The method of claim 8, wherein the step of reading out a boot image from the boot image  
2 storing device is accomplished when the computer is powered down.

1           10. A method for powering on a computer receiving main and auxiliary power, the  
2 method comprising the steps of:

3           providing a central processing unit with an instruction pointer, a main memory storing a boot  
4 image by receiving the auxiliary power when the main power is shut off, and a basic input/output  
5 system memory setting the instruction pointer

6           checking initializing steps and faults of the hardware components of the computer;

7           setting the instruction pointer of the central processing unit to a boot image storing region  
8 of the main memory; and

9           executing an operating system program by reading out the boot image from the boot image  
10 storing region of the main memory.

1           11. A method for booting a computer, comprising the steps of:

2           providing a central processing unit (CPU) having an instruction pointer and a memory for  
3 storing a boot image and a main memory;

4           reading out said boot image;

5           loading said boot image into said main memory;

6           setting said instruction pointer of said CPU to point to said boot image in main memory; and

7           executing an operating system by reading out said boot image from main memory.

1           12. The method of claim 11, said memory for storing said boot image prior to reading out  
2           said boot image being a boot image memory.

1           13. The method of claim 11, said memory for storing said boot image prior to reading out  
2           said boot image being a compact disk read only memory (CD-ROM).

1           14. The method of claim 11, wherein said step of reading out said boot image is  
2           accomplished when said boot image is in a compressed format.

1           15. The method of claim 14, further comprising the step of decompressing said boot image  
2           after said compressed boot image is read out.